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A. J. CAWLEY
LUMINOUS WRITING ATTACHMENT

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Fig.1.

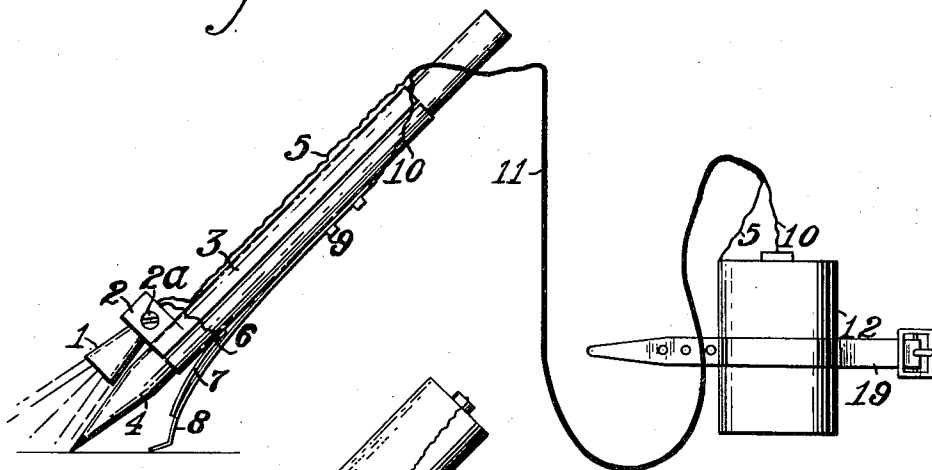


Fig.2.

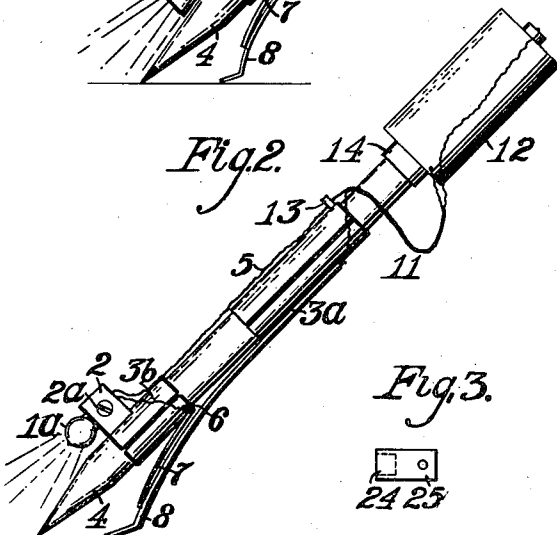
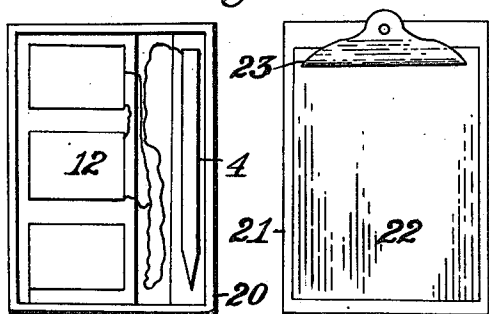


Fig.3.



a Fig.4. b



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LUMINOUS WRITING ATTACHMENT.

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To all whom it may concern:

Be it known that I, ALOYSIUS J. CAWLEY, a citizen of the United States, residing at Pittston, in the county of Luzerne and State of Pennsylvania, have invented a new and Improved Luminous Writing Attachment, of which the following is a full, clear, and exact description.

The invention relates generally to the combination of a light and a writing implement. More particularly it concerns a frame carrying a light; a pen or pencil may be inserted into this frame and the writing surface thus illuminated. An automatic means is provided whereby the light is turned off when writing ceases without any attention on the part of the writer. This means is actuated by contact with the writing surface.

The battery or other power source is attached either to the pencil, the wrist, or carried in the pocket.

A special writing case is also provided in which all the elements are carried, and which provides a surface on which the writing material is placed.

Much power is economized, due to the fact that the power is shut off when the light is not in use, and also due to the fact that the light, being near the writing surface, need not be so large. As batteries have a life of only a few hours of continuous use, a great economy is effected by automatically shutting off the current when not writing.

Reference is to be had to the accompanying drawing forming a part of the specification, in which like characters of reference denote corresponding parts in all of the views, and in which,

Figure 1 is an elevational view of a pencil equipped with an illuminating attachment having a switch which is actuated by the writing surface and a battery which is designed to be attached to the wrist or carried in the pocket.

Figure 2 is an elevational view of a pencil equipped with an attachment similar to the above, but with the battery attached to the end of the pencil.

Figure 3 is an elevational view showing the socket in which the small incandescent light is inserted.

Figure 4^a and *b* is a plan view of writing case; *a* shows it with the cover removed and *b* with the cover and a pad of writing paper upon it,

The invention has for its object the illumination of a writing surface only when and where needed. As the life of the battery is only a few hours, it is very easy for a reporter or the like to use up a battery before an evening's work is finished. By placing the light close to the point of the writing surface which is being written upon, and by automatically shutting off the current when writing ceases, the battery may have its life considerably extended.

A frame 3 is provided which clasps the pen, pencil or other writing implement 4, as shown in Fig. 1. This frame carries an extension 2 having an aperture to accommodate the screw 2^a which clamps and acts as a fulcrum for the base of lamp 1. Lamp 1 may, therefore, be turned at various angles to illuminate the parts of the surface best suited to the peculiarities of the individual. Insulated conductor 5 passes upwards and is joined by conductor 10, the two forming the cord 11 which connects with the battery 12. This battery may be provided with a strap 19, or elastic band, by means of which it may be attached to the wrist of the writer. However, it is also very convenient to carry it in the upper pocket of the vest or coat; or it may be attached to the clothing. Insulated conductor 6 connects the light 1 to the blade 7 of the switch which is shown closed by contact with the writing surface. This blade is made of a fine piece of highly resilient or elastic metal such as steel, and contacts with the larger blade 8 of similar material. Both blades are insulated from the frame 3. Rivets 9 may be used to attach the blades. Normally, the blades remain considerably away from the frame 3, blade 8 remaining farther away than blade 7. In this manner when they are brought in contact with the writing surface, both blades will be forced nearer the frame and also into contact with each other, and the connections made. It will be observed that when the pencil is raised slightly from the surface of the paper, as is necessary in dotting an "i", or in leaving a space between one word and another, blades 7 and 8 still remain in contact with the surface written upon and with each other, and there is no interruption of the light. However, when the pencil is raised considerably above the writing surface, or removed therefrom entirely, blades 7 and 8 separate, and the light is extinguished. Ob-

viously, the momentary lighting and extinguishing of the light, which has been thus avoided, would be very trying on the eyes. The light is only extinguished when writing is intentionally stopped. If it is desired not to use the light at all, it is only necessary to turn the pencil in the hand so that blades 7 and 8 do not come in contact with the writing surface, as by turning them to one side.

By making the frame 3 in two parts, as shown in Fig. 2 at 3^a and 3^b, it is unnecessary to insulate blades 7 and 8, as the wooden body of the pencil or ebonite body of the fountain pen act as insulators. The battery 12 is here shown provided with a ferrule like extension which may be screwed or clamped over the end of the pencil; this extension is shown at 14.

An ordinary incandescent lamp socket is shown in Figure 3; the lamp is inserted in 24 and electrical connections made in the usual manner with the base 25; screw 2^a is passed through the hole shown.

Much emphasis is placed on carrying the battery in the upper coat or vest pocket, connections being made by a suitable flexible conductor; the pen may be immediately put in this pocket when not in use. If attachment to the wrist is used, the pen may be inserted under the wrist band and extending upwards into the sleeve of the operator, when not in use. A clamp may be easily provided on the wrist band, if desired, but it is almost as convenient to insert it under the elastic band. Figure 4 illustrates a very compact and convenient arrangement in which the writing implement with its light may be carried in a writing case, together with the batteries, space being provided to accommodate the conducting cord. Fig. 4^a shows the case with the cover off showing batteries 12 and pencil 4, 20 being the casing. Fig. 4^b shows the cover 21 provided with clamp 23 which holds writing pad 22 in position. Obviously, either surface (cover or bottom) of the case might be utilized as a writing surface, that shown makes use of the cover. This arrangement permits of the greatest battery provision, as a large number of batteries may be carried. Next to this is the carrying of the batteries in the pocket as suggested in case of Fig. 1, etc.

The idea of producing illumination near the point of the pencil in all of the above devices results in greater clearness, as compared to placing the light to one side or above the writing surface, producing a transverse or slant illumination. A much smaller light may be used requiring less energy, resulting in a longer battery life. This life is lengthened further by means of the switch which shuts off the light when not in use. Too bright a light is not only

wasteful, but when used by reporters and detectives may be undesirable. The device is specially useful in reporting lengthy lectures in halls which have been darkened to display lantern slides.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In combination, a supporting frame having means of attachment to a writing implement, a light supported by the frame to illuminate a surface written upon, and a switch adapted to be actuated by the writing surface to energize the lamp when the writing implement is being used, a circuit for the lamp, and a source of power.

2. In combination, a supporting frame and means of attachment to a writing implement, a light supported by the frame to illuminate a surface written upon, and a switch consisting of two resilient blades adapted to be actuated by the writing surface to energize the lamp when the writing implement is used, a circuit for the lamp, and a source of power.

3. In combination, a supporting frame having means of attachment to a writing implement, a light supported by the frame to illuminate a surface written upon, and a switch consisting of two members connected to separate sections of said frame, adapted to be actuated by the writing surface to energize the lamp when the writing implement is being used, a circuit for the lamp, and a source of power.

4. In combination, a supporting frame having means of attachment to a writing implement, a light supported by the frame to illuminate a surface written upon, and a switch consisting of two resilient members attached to separate sections of said frame and adapted to be actuated by the writing surface to energize the lamp when the writing implement is being used, a circuit for the lamp, and source of power.

5. In combination, a supporting frame consisting of a plurality of sections, having means of attachment to a writing implement, a light supported by the frame to illuminate a surface written upon, and a switch adapted to be actuated by the writing surface to energize the lamp when the writing implement is being used, a circuit for the lamp, and a source of power.

6. In combination, a supporting frame consisting of a plurality of sections, said frame having means of attachment to a writing implement, a light supported by the frame to illuminate a surface written upon, and a switch adapted to be actuated by the writing surface to energize the lamp when the writing implement is being used, a circuit for the lamp, and a source of power.

7. In combination, a supporting frame having means of attachment to a writing im-

plement, a light mounted on a pivot and supported by said frame to illuminate a surface written upon, and a switch adapted to be actuated by the writing surface to energize the lamp when the writing implement is being used, a circuit for the lamp, and a source of power. 15

8. In combination, a supporting frame having means of attachment to a writing implement, a light supported by the frame to illuminate a surface written upon, and a switch adapted to be actuated by the writing surface to energize the lamp when the writing implement is being used, a circuit 20

for the lamp, and a source of power provided with means for attachment to the wrist of the writer.

9. In combination, a supporting frame having means of attachment to a writing implement, a light supported by the frame to illuminate a surface written upon, and a switch adapted to be actuated by the writing surface to energize the lamp when the writing implement is being used, a circuit for the lamp, and a source of power adapted 25 to be carried by the body of the writer.

ALOYSIUS J. CAWLEY.